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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,086	11/13/2001	Katsuhide Yajima	Q67205	6338

7590 08/30/2002
SUGHRUE, MION, ZINN
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

ELKASSABGI, HEBA

ART UNIT PAPER NUMBER

2834

DATE MAILED: 08/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,086

Applicant(s)

YAJIMA ET AL.

Examiner

Heba Elkassabgi

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 14 June 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Newly submitted claims 11-13 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The original set of submitted claims did not include method claims, the original set of submitted claims are drawn to the structure of the motor.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-13 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The examiner acknowledges the Applicants remarks to the drawing objection, and that the drawing objection is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohi et al. (U.S. Patent 5798589) and further in view of Hirano et al. (U.S. Patent 6333579) and Kawanishi (U.S. Patent 5886438).

Ohi et al. illustrates in Figure 1 a brushless motor in which the coil bobbin (38,40,15, and 13) is positioned formed with a stator (12) that constitute laminated silicon sheet core plates (35). The slide bearings (17 and 16) acts as a thrust-positional regulation part within the rotor (5) and is mounted in coil bobbin (38,40,15, and 13) in the thrust-axial direction (AA) of the rotor (5). The slide bearing (17) acts as the urging member on to the rotor and receives one end of the shaft. In addition, Ohi et al. illustrates a shaft (2) that is protruding from the bearing (16) with the mounting portion (3) (which acts as a lead screw) is formed on the upper end of the rotating shaft (2). The surface in contact with either the shaft of the rotor or the surface in contact with the bobbin act as a holding portion of the slide bearing. In Figure 4 Ohi et al. further teaches that a thrust stopper (6) (which the thrust stopper acts as an urging force) in the direction of the axis (AA) is supported on the rotor (5) with a nylon based washer (24) and a NBR rubber washer (25) provided between the thrust stopper (6) and bearing (16) in order to reduce sliding resistance that is generated between the thrust stopper (6) and bearing (16). In addition, Ohi et al. though, fails to teach a stator coil bobbin that is made of resin and two stator cores.

Hirano et al. teaches that a stator core of an outer rotor -type generator consist of a bobbin (35) that is made of synthetic resin and is coupled to the stator core (32) by molding.

Kawanishi discloses in Figure 2 a motor having the rotor (6) is disposed inside the two cores and two stator cores (7) stacked in an axial direction with each core having an outer (CC) and an inner (DD) yokes in order to position the motor holder.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Ohi et al. with Hirano by manufacturing the bobbin of synthetic resin in order to improve the structure of the insulating coil and Kawanishi to position the motor holder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally contact the holding portion of the slide bearing with the coil bobbin, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U. S. 164 (1893).

Application/Control Number: 09/987,086
Art Unit: 2834

Page 5

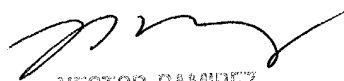
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HYE
August 26, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000